

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.	10/611,431	Confirmation No.	1436
Applicants	Paul BRANTNER, et al.		
Filed	02 July 2003		
TC/Art Unit	2834		
Examiner	M. Budd		
Docket No.	014.2002		
Customer No.	49837		



**DECLARATION OF PAUL BRANTNER UNDER 37 CFR § 1.131**

Commissioner for Patents  
Alexandria, VA 22313-1450

Sir:

I, Paul Brantner, declare the following:

1. I am an inventor of the above-identified patent application, serial No. 10/611,431. This patent application claims priority to U.S. Provisional Patent Application No. 60/464,357, filed 22 April 2003.
2. I have read and I am familiar with the above-identified patent application, serial No. 10/611,431.
3. I have read and I am familiar with the Office Action mailed 19 January 2005 pertaining to this application.
4. I understand that in the Office Action mailed 19 January 2005 the Examiner rejected claims 1-4, 7-27 and 30-45 as obvious over U.S. Patent No. 6,737,789 issued to Radziemski et al. ("*Radziemski*") in view of U.S. Patent No. 6,198,205 issued to Oberlin et al. ("*Oberlin*").
5. I have read and I am familiar with the *Radziemski* patent. It is my understanding that the *Radziemski* patent was filed on 2 December 2002 and issued on 18 May 2004. I also understand

that the *Radziemski* patent claims priority to U.S. provisional patent application No. 60/350,396, filed on 18 January 2002, and U.S. provisional patent application No. 60/350,428, filed on 18 January 2002.

6. I attest that prior to 18 January 2002 I conceived of and developed a prototype of the invention claimed in claim 1 of the present patent application. I made this prototype in accordance with the method of claim 23 of the present patent application. This prototype was tested and successfully converted ambient energy into electrical energy. I recall that this prototype included at least two stacked piezoelectric elements, a Schotcky Bridge as a rectification block, capacitors arranged to accumulate charge from the Schotcky Bridge, a diode at the input of the capacitors, and a battery.

7. Attached, as Exhibit A is a copy of a lab notebook page I used as a record of work. This exhibit, which is dated prior to 18 January 2002, corroborates that prior to 18 January 2002 (actual earlier dates redacted, *see* MPEP §715.07) I conceived of and developed a prototype of the invention now claimed and disclosed in the present patent application.

8. Exhibit A shows that that I initially worked on a thin film piezo material prototype prior to 18 January 2002 and several months prior to the notebook page date. The first figure on the notebook page represents the work I performed in this area. As indicated in this Exhibit A, a baseline concept was developed and “was shown to be effective for applied forces (application and release pulses) as low as 1 gram.” The ambient energy charging with this early work, however, was “found to be unacceptable.”

9. Exhibit A also shows that I made a prototype of the invention claimed in claim 1 of the present patent application prior to 18 January 2002 and after the initial work described in paragraph 8 above. Specifically, the second figure on this notebook page shows two stacked piezoelectric elements, a rectification block (Schotkey Bridge), and a storage device to accumulate charge from the rectification block. The notebook page also mentions, “a four film concept was developed using the setup,” and that “room ambient energy charging” with this four-film setup “shows acceptable.” Although this notebook page does not explicitly show them, I recall that the prototype I built pursuant to the design in this notebook also included capacitors and a diode; this conclusion is supported by the “acceptable” results memorialized on this page.

10. Prior to 18 January 2002, Adolph Trujillo and Joe McDermott witnessed the successful demonstration of this prototype recorded on the notebook page of Exhibit A, and signed and dated the notebook page accordingly. At that time, Infinite Power Solutions employed Adolph Trujillo, Joe McDermott, and me.

11. After memorializing my prototype, as recorded in Exhibit A and discussed in paragraph 9 above, I diligently continued work to develop and optimize the invention for commercialization. I also began preparation for filling a provisional patent application, which was ultimately filed 22 April 2003 as application No. 60/464,357.

12. It is my understanding that Adolph Trujillo and Joe McDermott will swear declarations attesting to their recollection of the facts I have described in, at least, paragraphs 6, 10 and 11 above. Once memorialized these declarations will be included herewith.

13. The conception and development of the prototype, the tests performed on it, and the demonstrations described above were all performed within the United States.

14. All statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that the statements were made with knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and such willful false statements may jeopardize the validity of the application or any patents issuing thereon.

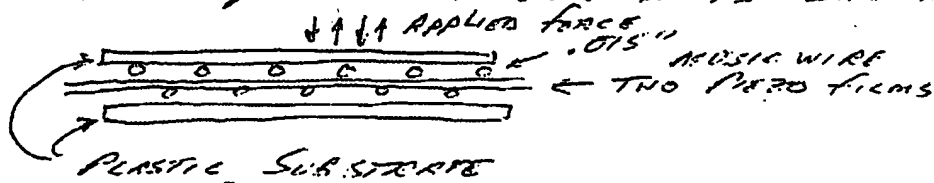
  
Inventor: Paul Brantner

Date: 5/12/05

**Exhibit A**  
to Declaration of Paul Brantner under 37 CFR § 1.131

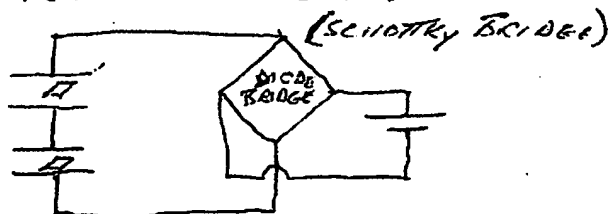
- RECORD OF WORK, PIEZO CHARGING  
AMBIENT ENERGY, APPLIED FORCE.  
INFRARED / HEAT.

INITIAL WORK USING THIN FILM <sup>PIEZO</sup> MATERIAL  
OCCURRED DURING THE SECOND WEEK AT.  
A BASELINE CONCEPT, USING MEASUREMENT  
SPECIALTIES PIN 1-1002608-0 IS SHOWN BELOW



THE ABOVE WAS SHOWN TO BE EFFECTIVE  
FOR APPLIED FORCE (APPLICATION & RELEASE  
PULSES) AS LOW AS 1g. AMBIENT ENERGY  
CHARGING WAS FOUND TO BE UNACCEPTABLE:  
VOLTAGE DID NOT EXCEED 25  $\mu$ V.

EQUIVALENT CIRCUIT:



A INTERCONNECT WIRING LENGTH OF 10'  
USED FOR ANTENNA DURING  
AMBIENT ENERGY TESTING.

- Paul R. Chantre

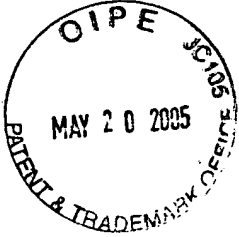
WITNESS: 1) *[Signature]*  
2) *[Signature]*

DURING A THIN FILM  
CONCEPT WAS DEVELOPED USING THE  
SETUP DESCRIBED ON THE FOLLOWING  
PAGES. ROOM AMBIENT ENERGY CHARGING  
INITIALLY SHOWS ACCEPTABLE. PRIMARY  
CHARGE ENERGY ~~ENTIRE~~ CALCULATIONS  
WILL FOLLOW MECHANICAL DESCRIPTION &  
SCHEMATIC.

*[Signature]*  
WITNESS: *[Signature]*  
*[Signature]*

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.	10/611,431	Confirmation No.	1436
Applicants	Paul BRANTNER, et al.		
Filed	02 July 2003		
TC/Art Unit	2834		
Examiner	M. Budd		
Docket No.	014.2002		
Customer No.	49837		



**DECLARATION OF ADOLPH TRUJILLO UNDER 37 CFR § 1.131**

Commissioner for Patents  
Alexandria, VA 22313-1450

Sir:

I, Adolph Trujillo, declare the following:

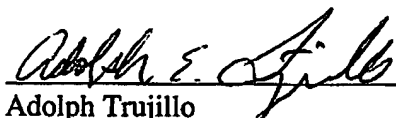
1. I am an inventor involved in the development of the invention of the above-identified patent application, serial No. 10/611,431. This patent application claims priority to U.S. Provisional Patent Application No. 60/464,357, filed 22 April 2003.
2. I have read and I am familiar with the above-identified patent application, serial No. 10/611,431.
3. I have read and I am familiar with the declaration of Paul Brantner dated May 12, 2005.
4. I attest that prior to 18 January 2002 I witnessed a successful demonstration of a prototype apparatus developed by Mr. Brantner that included at least two stacked piezoelectric elements, a Schotcky Bridge as a rectification block, capacitors to accumulate charge, a diode, and a battery and described in Mr. Brantner's declaration at least in paragraph 6.

*Declaration of Adolph Trujillo*

5. I have read and I am familiar with the lab notebook page Mr. Brantner used as a record of his work, discussed in the above-mentioned declaration, and attached as Exhibit A to Paul Brantner's declaration. I attest that prior to 18 January 2002; I also witnessed a prototype of this invention as disclosed in that notebook page and I signed that page accordingly.

6. I also believe that at the time I witnessed the demonstration of Mr. Brantner's prototype, prior to 18 January 2002, in Colorado, I had an appreciation of its function to translate ambient energy, such as in this case an applied force, to charge capacitors as described to me by Mr. Brantner.

7. I further attest that Mr. Brantner continued work on developing and optimizing his invention for commercialization and began preparation for filling a provisional patent application. I assisted in building portions of the invention identified in the above identified patent application, communicated certain information regarding the invention to Mr. Brantner, and performed testing on aspects of this invention.

  
Adolph Trujillo

Date: 5/18/05

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. 10/611,431 Confirmation No. 1436  
Applicants Paul BRANTNER, et al.  
Filed 02 July 2003  
TC/Art Unit 2834  
Examiner M. Budd  
Docket No. 014.2002  
Customer No. 49837



DECLARATION OF JOE MCDERMOTT UNDER 37 CFR § 1.131

Commissioner for Patents  
Alexandria, VA 22313-1450

Sir:

I, Joe McDermott, declare the following:

1. I have read and I am familiar with the above-identified patent application, serial No. 10/611,431. *AKM*
2. I have read and I am familiar with the declaration of Paul Brantner dated May 12, 2005. *AKM*
3. I attest that prior to 18 January 2002 I witnessed a successful demonstration of a prototype apparatus developed by Mr. Brantner that included at least two stacked piezoelectric elements, a Schotcky Bridge as a rectification block, capacitors to accumulate charge, a diode, and a battery. *AKM*
4. I have read and I am familiar with the lab notebook page Mr. Brantner used as a record of his work, discussed in the above-mentioned declaration, and attached as Exhibit A to Paul Brantner's declaration. I attest that prior to 18 January 2002; I also witnessed a prototype of this invention as disclosed in that notebook page and I signed that page



*Declaration of Joe McDermott*

accordingly. *JKM*

5. I also believe that at the time I witnessed the demonstration of Mr. Brantner's prototype, prior to 18 January 2002, in Colorado, I had an appreciation of its function to translate ambient energy, such as in this case an applied force, to charge capacitors as described to me by Mr. Brantner. *JKM*

6. I further attest that I was aware that Paul Brantner continued work on developing and optimizing his invention for commercialization and that he began preparation for filling a provisional patent application. *JKM*

  
Joe McDermott

Date: 18 May 2005